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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/515,384	02/29/2000	Mary Ellen Zurko	C99021US	1649
22879	7590	06/17/2004	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			DARROW, JUSTIN T	
			ART UNIT	PAPER NUMBER
			2132	
DATE MAILED: 06/17/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

/1

APR

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/515,384	ZURKO ET AL.
<b>Period for Reply</b>	<b>Examiner</b>	<b>Art Unit</b>
	Justin T. Darrow	2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 22 April 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 21-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 21-27 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 22 April 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____.   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

1. Claims 1-28 have been presented for examination. Claims 1-20 have been canceled and new claims 21-28 have been added in a preliminary amendment filed 02/29/2000. Claim 28 has been canceled in an amendment filed 04/22/2004. Claims 21-27 have been examined.

### ***Priority***

2. Acknowledgment is made that the instant application is a division of Application No. 07/479,666, filed 02/13/1990, now U.S. Patent No. 6,507,909 B1.

### ***Drawings***

3. The drawings were received on 04/22/2004. These drawings are approved.

### ***Response to Arguments***

4. Applicant's arguments filed 04/22/2004 have been fully considered but they are not persuasive.

5. As per claims 21-26, in response to applicant's apparent argument that the reference, Atalla, U.S. Patent No. 4,315,101 A, fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., improving security on a single computer station, allowing a user to distinguish between actual and emulated trusted paths, and a parsed command) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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6. As per claims 21-27, Atalla, U.S. Patent No. 4,315,101 A, does disclose the step of displaying the process identifier to the user (see column 8, lines 31-44; an authorized individual is able to control a transaction with the aid of previously established files in the correspondent office; see column 8, lines 7-12; figure 6, item 110; output is generated upon favorable comparison of the two ACK-TRAC signals in the comparator is an indication of completion of the transaction which was initiated by the individual; see column 9, lines 26-28; an ACK-TRAC signal providing an indication at office A that the requested transaction process was completed at office B; see column 14, lines 15-18; figure 12, item 253; the enabling signal signifies an authorized user completion of directions; see figure 12; "PAY INVOICE NO."; see figure 13; "MONEY OUT").

7. As per claims 21-27, Atalla, U.S. Patent No. 4,315,101 A, additionally refers to prior art disclosing displaying to the user which his invention extends. The author of a prior art reference used in a grounds of rejection may refer to extrinsic evidence to explain, but not expand, the meaning of his reference. See *In re Baxter Travenol Labs*, 21 USPQ2d 1281, 1282 (Fed. Cir. 1991) and MPEP § 2131.01 II. Here, Atalla describes how his invention (see Atalla, U.S. Patent No. 4,315,101 A, column 1, lines 56-63) improves security over the prior art such as Anderson et al., U.S. Patent No. 3,956,615 A (see Atalla, U.S. Patent No. 4,315,101 A, column 1, lines 20-36). Anderson et al. further point out a user communication subsystem with a visual display (see column 8, lines 26-34; figure 2, item 72) and displaying a process identifier to a user (see Anderson et al., U.S. Patent No. 3,956,615 A, column 22, lines 16-21; displaying to the user the message "TRANSFER \$50.00 FROM SAVINGS ACCOUNT TO CHECKING ACCOUNT") through a trusted path (see Anderson et al., U.S. Patent No. 3,956,615 A, column 21, lines 22-28;

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an encrypted action byte). Thus, Atalla uses similar displaying activity on a visual monitor to a user in his invention when he uses terms such as “indication” (see Atalla, U.S. Patent No. 4,315,101 A, column 8, lines 7-12 and column 9, lines 26-28) and “signifies” (see Atalla, U.S. Patent No. 4,315,101 A, column 14, lines 15-18).

8. As per claim 27, applicant’s argument that Atalla does not disclose or suggest displaying a representation of the parsed command to the user for verification before the command is performed is incorrect. Atalla does describe that the authorized user is presented by an enabling signal (see column 14, lines 15-18; figure 12, items 233 and 253 and “PAY INVOICE NO.”) where he verifies the signal to complete the transaction to prevent unauthorized manipulation of his account (see column 14, lines 19-24).

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 21-26 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Atalla, U.S. Patent No. 4,315,101 A.

As per claims 21 24/21, 25/21, 26/21, and 28/21, Atalla illustrates a method, an automatic data processing machine programmed to execute a method, an automatic data processing machine comprising means for performing a method, and program storage devices readable by

machine and tangibly embodying a representation of a program of instructions adaptable to be executed by the machine to perform a method for verifying the existence of a trusted path, comprising:

(a) upon login by a user (see column 6, lines 58-60; figure 6, items 87 and 83; the authorized person introduces his PIN via keyboard), assigning a process identifier to the user in the trusted computing environment (see column 7, lines 35-43; figure 6, items 97 and 101; outputting ACK-TRAC at the remote location; see column 8, lines 7-12; figure 6, items 109 and 107; where the ACK-TRAC signal is an indication of the completion of the transaction);

(b) storing the assigned process identifier in trusted memory (see column 9, lines 26-34; storing instructions and acknowledgments as auditable records);

(c) establishing a trusted path between the user and the trusted computing environment (see column 6, lines 58-60; the authorized person introducing his PIN to produce an input in a module to establish a trusted path; see column 6; lines 43-49; enabling the authorized individual to control various secured transactions; column 7, lines 35-41; figure 6, items 97, 101, and 121; sending the ACK-TRAC signal from the encryption module; see column 9, lines 21-34; where acknowledgments are transmitted with substantial security against errors and unauthorized alterations);

(d) through the trusted path, displaying the process identifier to the user (see column 8, lines 7-12; figure 6, item 110; output is generated upon favorable comparison of the two ACK-TRAC signals in the comparator is an indication of completion of the transaction which was initiated by the individual; see column 9, lines 26-28; provide an indication at office A that the requested transaction was completed at office B; see column 14, lines 15-18; figure 12, item 253;

the enabling signal signifies an authorized user completion of directions; see figure 12; "PAY INVOICE NO."; see figure 13; "MONEY OUT"); and

(e) upon the user's subsequent entry into the trusted environment (see column 9, lines 29-34; instructions and acknowledgements (i.e. the ACK-TRAC signal) in auditable records for subsequent examination), displaying the process identifier to the user through the trusted path (see column 8, lines 31-44; an authorized individual is able to control a transaction with the aid of previously established files in the correspondent office; see column 8, lines 7-12; figure 6, item 110; output is generated upon favorable comparison of the two ACK-TRAC signals in the comparator is an indication of completion of the transaction which was initiated by the individual; see column 9, lines 26-28; an ACK-TRAC signal providing an indication at office A that the requested transaction process was completed at office B; see column 14, lines 15-18; figure 12, item 253; the enabling signal signifies an authorized user completion of directions; see figure 12; "PAY INVOICE NO."; see figure 13; "MONEY OUT").

As per claims 22, 24/22, 25/22, 26/22, and 28/22, Atalla further elaborates:

that the process identifier is a randomly generated group of alphanumeric characters (see column 3, lines 44-49; figure 1A, items 13 and 15; a user identifier code produced from a random number; see column 6, lines 64-68; column 7, lines 1-5; figure 5A, items 83 and 91).

As per claims 23, 24/23, 25/23, 26/23, and 28/23, Atalla additionally suggests:

that the process identifier is pronounceable (see column 6, lines 50-57; figures 5A and 5B, items MSGE and SEQ; that ACK-TRAC is encrypted from the message, such as an account

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number, combined with a sequence number, such as date and time, all pronounceable pieces of data).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 27 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Atalla, U.S. Patent No. 4,315,101 A in view of National Institute of Standards and Technology, "DES Modes of Operation."

As per claim 27, Atalla depicts an apparatus for executing a trusted command that is issued by a user and that is parsed by untrusted means to generate a parsed command (see column 6, lines 50-57; figures 5A and 5B, items MSGE and 83; a message indicating the type of transaction supplied to an encryption algorithm module; see column 4, lines 50-59; column 6, lines 61-64; incorporating the National Bureau of Standards' encryption-decryption algorithm which is the Federal Information Processing Standard approved by the U.S. Department of Commerce, the Date Encryption Standard (DES)), comprising:

(a) trusted means for receiving the encrypted command via a trusted path (see column 7, lines 1-7; figure 6, item 89; transmitting the encrypted message as TRAC signal over a data link; see column 9, lines 29-34; where the instructions required to command a transaction are

transmitted with substantial security against errors and unauthorized alterations, and with ample provisions for auditable records of the transaction);

(b) means for displaying a representation of the encrypted command to the user for verification (see 7, lines 35-41; figure 6, items 97 and 101; the ACK-TRAC signal resulting from the encrypted message; see column 14, lines 15-18; figure 12, items 233 and 253 and "PAY INVOICE NO."; the authorized user is presented by an enabling signal; see column 14, lines 19-24; where he verifies the signal to complete the transaction to prevent unauthorized manipulation of his account); and

(c) trusted means for executing the verified encrypted command (see column 14, lines 15-18; enabling the gate to signal the authorized completion of the directions received from the user).

Atalla does not explicitly disclose the feature of parsing to generate a parsed command. However, this feature is deemed to be inherent to the apparatus of Atalla because the DES encryption algorithm requires dividing the data to be encrypted into 64-bit blocks. Because the missing descriptive matter of parsing is necessarily present to cause the system to function and because persons of ordinary skill in the art would recognize this necessary presence, the inherency of this missing feature is sufficiently established. See MPEP § 2112 and *In re Roberston*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

National Institute of Standards and Technology, "DES Modes of Operation" elaborates: parsing to generate a parsed command (see Section 1.1 Definitions, Abbreviations, and Conventions. DES INPUT BLOCK: a block that is entered into the DES device for either encryption or decryption of 64 bits in length). Therefore, it would have been obvious to one of

ordinary skill in the computer art at the time the invention was made to combine the apparatus of Atalla with the parsing of the National Institute of Standards and Technology to map all possible 64-bit vectors onto itself (see Appendix A, ¶ 6).

***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Telephone Inquiry Contacts***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin T. Darrow whose telephone number is (703) 305-3872 and whose electronic mail address is [justin.darrow@uspto.gov](mailto:justin.darrow@uspto.gov). The examiner can normally be reached Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barrón, Jr., can be reached at (703) 305-1830.

The fax number for Formal or Official faxes to Technology Center 2100 is (703) 872-9306. In order for a formal paper transmitted by fax to be entered into the application file, the paper and/or fax cover sheet must be signed by a representative for the applicant. Faxed formal papers for application file entry, such as amendments adding claims, extensions of time, and statutory disclaimers for which fees must be charged before entry, must be transmitted with an authorization to charge a deposit account to cover such fees. It is also recommended that the cover sheet for the fax of a formal paper have printed "**OFFICIAL FAX**". Formal papers transmitted by fax usually require three business days for entry into the application file and consideration by the examiner. Formal or Official faxes including amendments after final rejection (37 CFR 1.116) should be submitted to (703) 872-9306 for expedited entry into the application file. It is further recommended that the cover sheet for the fax containing an amendment after final rejection have printed not only "**OFFICIAL FAX**" but also "**AMENDMENT AFTER FINAL**".

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

June 10, 2004

*Justin Darrow*  
JUSTIN T. DARROW  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 2100